



2613

PATENT
3782-0126P

IN THE U. S. PATENT AND TRADEMARK OFFICE

APPLICANTS: Petter ERICSON CONF. NO. 1151
APPLN. NO.: 09/812,906 GROUP: 2613
FILED: March 21, 2001 EXAMINER: Unknown
FOR: DATA FORM HAVING A POSITION-CODING PATTERN
DETECTABLE BY AN OPTICAL SENSOR

RECEIVED
OCT 03 2001
Technology Center 2600

LETTER SUBMITTING TRANSLATION
OF NON-ENGLISH LANGUAGE PROVISIONAL APPLICATION
PURSUANT TO 35 U.S.C. § 119(e) AND 37 C.F.R. 1.78(a)(5)

Assistant Commissioner for Patents
Washington, D.C. 20231

September 28, 2001

Sir:

In accordance with the requirements of 35 U.S.C. § 119(e) and 37 C.F.R. § 1.78(a)(5), attached hereto is a verified English language translation of U.S. Provisional Application No. 60/208,167 filed on May 31, 2000. This submission completes the claim for priority of this provisional application in the above-identified patent application.

If necessary, the Commissioner of hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. § 1.16 or under § 1.17; particularly, extension of time fees.

Respectfully submitted,
BIRCH, STEWART, KOLASCH & BIRCH, LLP

By: 

Michael K. Mutter
Reg. No. 29,680

MKM/gf
(703) 205-8000

P.O. Box 747
Falls Church, VA 22040-0747



ans. 001620 /
(Linn) (8)

RECEIVED
OCT 03 2001
Technology Center 2600

VERIFIED TRANSLATION

I, the undersigned Patricia HARDING, BA(Hons),
technical translator to RWS Group plc, of Europa House, Marsham Way, Gerrards Cross,
Buckinghamshire, England, do hereby declare:

- (1) That I am well familiar with the Swedish and English languages;
- (2) That the attached is a true and accurate translation into the English language of the Swedish text of this Patent Application entitled "Method and Device for Processing of Information" that was filed in the US Patent and Trademark Office on 31 May 2000,
- (3) That all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under § 1001 of title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Dated this 21st day of August 2000


P. HARDING

For and on behalf of RWS Group plc



3782-126P

RECEIVED
OCT 03 2001
Technology Center 2600

UNITED STATES PATENT APPLICATION

OF

PETTER ERICSON

FOR

METHOD AND DEVICE FOR PROCESSING OF
INFORMATION

Field of the Invention

This invention concerns a method in a system comprising at least one computer and at least one printer, for generating a form according to claim 1, and a corresponding arrangement according to claim 7, and a digital storage medium containing a corresponding computer program according to claim 8. The invention also concerns a method in a computer system for recording form data for an information entry according to claim 9, and a corresponding arrangement according to claim 14 and a digital storage medium containing a corresponding computer program according to claim 15. The invention also concerns a form according to claim 16.

Technical Background

Forms and the like are used to a considerable extent in today's society. The aim of such forms is to ensure that a user fills in the correct information and that this is carried out in a structured way. Therefore forms usually consist of a sheet of paper containing printed form layouts, with instructions concerning what information is to be filled in and directions concerning where on the sheet this is to be carried out.

With modern computer technology it is possible to record automatically the information which is entered on a form. The simplest way of doing this is with a flat-bed scanner connected to a computer system. In a simple embodiment an information file is then created in a graphical

format (for example in tiff format). Such simple recording makes it possible to create a copy of the form at a later stage. The copy can then be printed and interpreted manually.

It is also possible to process the created file by OCR technology which can recognize text, both in the layout of the form and in the fields which have been filled in by a user. Creating a corresponding database form from a scanned image of a form requires, however, comprehensive and complicated image analysis software. The identity and orientation of the form is to be determined and the entries on the form are to be identified and distinguished from the layout of the form. In addition there are many potential sources of error in this process, which means that it must be monitored carefully.

Automatic recording of information which is entered in various forms also requires completed forms to be sent to a place where they can be recorded by a scanner, as it cannot of course be assumed that, for example, an individual filling in a form for a market research survey will have access to an advanced flat-bed scanner with the comprehensive and expensive software that is required for the subsequent image analysis of the scanned image.

The use of a flat-bed scanner also makes considerably more difficult mobile recording of a form in the field, for example in connection with market research surveys.

Summary of the invention

An object of this invention is to completely or partially solve the above-mentioned problems.

This object is achieved by a method in a system for generating a form according to claim 1, and a corresponding arrangement according to claim 7, and a digital storage medium containing a corresponding computer program according to claim 8; a method in a computer system for recording form data for an information entry according to claim 9, and a corresponding arrangement according to claim 14, and a digital storage medium containing a corresponding computer program according to claim 15; and a form according to claim 16.

According to a first aspect of the invention, a method for generating a form is provided in a system comprising at least one computer and at least one printer. The method comprises the steps, in any order: printout, by means of said printer, of a form layout, comprising at least one entry field, on a base in the form of a sheet, which base is provided with a position-coding pattern, said entry field being intended to be completed using a user unit, which is arranged to detect optically positions on the base utilizing the position-coding pattern, for digital recording of the information entered in the entry field; and printout, by means of said printer, of an identity pattern on said base, a marking of the identity pattern using said user unit

being intended to be detected by the user unit, utilizing the position-coding pattern, as a set of positions, which identify said form layout.

Such a position-coding pattern can be designed in the way described in Applicant's Patent Applications SE 9901954-9 and SE 9903541-2, which are herewith incorporated by reference. These were filed on 28 May 1999 and 1 October 1999 respectively and were therefore not publicly available at the time of the filing the present application.

A form which is printed in accordance with the above-mentioned method is thus intended to be completed using a user unit which at the same time records the entered information. When the form has been completed (or before it is completed), the identifying pattern is marked or a line is drawn through it using the user unit. This operation can link the information entered in the form to a particular database form in the computer system. This means at the same time that the information entered in a particular entry field can be linked to a particular information entry in the database form, that is position information within a particular domain on the sheet is connected to a particular entry on the form. The structuring of the completed information is thus carried out automatically.

Recording of a form created in accordance with the above-mentioned method does not therefore require a flat-

bed scanner equipped with advanced software for image analysis. The completion of the form and recording of the information entered is carried out in a single stage. The form does not therefore need to be sent away, but can, for example, be retained as a copy of what was entered on it. Mobile recording can be carried out in the field. The computer system can process the entered information in a simple and structured way and the danger of errors arising in the recording is reduced.

Boxes to be ticked or a set of parallel juxtaposed lines can preferably be part of the identity pattern. These are also found in other contexts and a user understands intuitively how they are to be marked.

The positions which identify the form layout can preferably also consist of a description of the scale in which said layout has been printed in relation to the position-coding pattern. This makes it possible for a recording system to compensate for a printout which, for example, has been made in too small a scale.

According to a preferred embodiment of the method according to the invention, this additionally comprises the step: generation of a database form in the computer system, comprising an information entry which corresponds to the entry field of the printed form, information corresponding to said digital recording of information entered in the entry field being intended to be stored in the information entry. This makes it possible for the

same system which prints the form, or a system communicating with this, to carry out the recording of the entered information into a database form. A form which is printed can then suitably be provided with an identifying pattern which not only identifies the form layout but also the printed form, which is thus given a unique identifying pattern.

The information which is stored in the information entry can then preferably consist of output data when the computer system applies a rule to input data corresponding to said digital recording of information entered in the entry field. The rule's output data is then a processing of its input data. This also permits interpretation of information entered in the information field.

This aspect of the invention also comprises a corresponding arrangement for the generation of a form and a digital storage medium containing a computer program for generating a form. These have advantages corresponding to those of the method and can also be varied in an essentially similar way.

According to a second aspect of the invention, a method is provided in a computer system for inputting form data into an information entry, said form data arising when an entry field in a form, which comprises a form layout printed on a base in the form of a sheet, is completed using a user unit. The method comprises the following steps, in any order: recording of a first set of

position information corresponding to form data which arises when the entry field is completed by means of the user unit, by the base being provided with a position-coding pattern and by the user unit being arranged to detect optically positions on the base utilizing the position-coding pattern; and recording of a second set of position information which arises in the same way when an identity pattern which is printed on the sheet is marked by the user unit, which second set of position information is intended to identify said form layout.

This aspect of the invention goes together with the first aspect of the invention like a lock and key and thus has corresponding advantages.

The information entry can preferably be incorporated in a database form. This enables a complete corresponding virtual form to be created in the computer system.

A rule is suitably applied to the first set of position information so that output data from the rule which is obtained by processing the first set of position information constitutes input data for the information entry. This also permits interpretation of information entered in the information field.

The format of the output data of the rule is preferably from the group: Boolean variable, whole number, real number, text string or a graphical format. These formats can then be processed in various general ways by the com-

puter system concerned or by another computer system to which this information is transmitted.

The computer system can preferably be contained in the user unit. This enables both mobile recording and interpretation of information which is entered on a form. Processed data can thereafter be forwarded to other systems.

In this aspect of the invention there is also a corresponding arrangement for entry of form data and a digital storage medium containing a computer program for entering form data. These have corresponding advantages to those of the method and can also be varied in essentially corresponding ways.

According to a third aspect of the invention, a form is provided comprising a form layout, with at least one entry field, which is printed on a base in the form of a sheet. The form is characterized in that the base is provided with a position-coding pattern, said entry field being intended to be completed using a user unit, which is arranged to detect optically positions on the sheet, utilizing the position-coding pattern, for digital recording of information entered in the entry field; and by an identity pattern on said sheet, a marking of the identity pattern using the user unit being intended to be detected by the user unit, utilizing the position-coding pattern, as a set of positions which identify said form layout.

The form has advantages corresponding to the method according to the first aspect of the invention.

The base in the form of a sheet preferably consists of a sheet of paper.

Brief Description of the Drawings

Fig. 1 shows a computer system in which the methods according to the invention can be carried out, a base in the form of a sheet and a user unit of a preferred type.

Fig. 2 shows a form according to the invention.

Fig. 3 shows an embodiment of the identifying pattern.

Fig. 4 shows the application of a number of rules with position information as input data.

Fig. 5 shows a flow chart describing a method for generating forms according to the invention.

Fig. 6 shows a flow chart describing a method for recording form data for an information entry.

Description of Preferred Embodiments

Fig. 1 shows a computer system 100 in which the methods according to the invention can be carried out, a base 101 in the form of a sheet and a user unit 102 of a preferred type.

The described computer system 100 comprises a personal computer 103 to which is connected a display 104 and a keyboard 105. The methods according to the invention can, however, be applied in both larger and smaller computer systems. In the described computer system 100

there is also a printer 106. This can be a laser printer or an ink-jet printer. Other types of printers are also possible.

Fig. 1 shows as mentioned also a base 101 in the form of a sheet of the type which is intended to be used in connection with the invention. The base 101 can consist of a sheet of paper, but other materials, such as plastic or a laminate of several materials, are also possible.

The base 101 is provided with a position-coding pattern 107 (shown enlarged). This can be arranged by means of printing. It is, however, also possible to print the position-coding pattern 107 using the computer system's printer 106. The position-coding pattern 107 is so arranged that if a part of the pattern of a certain minimum size is recorded optically then this part of the pattern's position in the pattern and hence on the base can be determined unambiguously. The position-coding pattern can advantageously be of such a type as shown in Applicant's previous Applications SE 9901954-9 and SE 9903541-2, where each position is coded by a plurality of symbols and where one symbol is used to code a plurality of positions. The position-coding pattern 107 shown is constructed as shown in SE 9901954-9, where a larger dot represents a "one" and a smaller dot represents a "zero". It is, however, also possible to design the position-coding pattern 107 as described in SE 9903541-2,

where different displacements of a dot in relation to a raster code different symbol values.

Fig. 1 also shows a user unit 102 designed as a pen. The user unit 102 has a pen point 108 which can be used to write text and numbers or draw figures on the base. The user unit 102 also comprises optics which, utilizing the position-coding pattern 107 on the base 101, can detect positions on this. When a figure 109 is drawn on the base 101, a sequence of positions on the base 101 are therefore detected, corresponding to the movement of the user unit 102 over the base 101. This sequence of positions forms a digital record of the figure 109 drawn on the base 101. In the same way, hand-written numbers and letters can also be recorded digitally.

The information recorded by the user unit 102 can be transmitted to another unit, such as a personal computer, for further processing and storage. This can be carried out using a cable, by means of an infrared link, or preferably via a short-range radio link, for example in accordance with the BLUETOOTH standard. The information which is transmitted can be the direct sequence of positions in the form of a set of pairs of co-ordinates or a polygon train which represents this set.

Fig. 2 shows a form 200 according to the invention. The form 200 consists of a base 201 of the type previously described, provided with a position-coding pattern (not shown), as described in connection with Fig. 1. A

form layout 203 is printed on the base 201. The form layout 203 comprises a plurality of entry fields 204-207.

The form 200 is used to collect information. The information arises when a user writes, for example, text or a number in any of the entry fields 204-207. This can concern a piece of text such as a name or an address. It can be a whole number, such as the age of a person in whole years, or a real number, for example a patient's body temperature in degrees Celsius to two decimal places. It can also be the reply to a multi-choice question. There can also be other types of entered information, which will be described below.

When an entry field 204-207 is completed by a user using a user unit of the type described in connection with Fig. 1, the user unit records a sequence of positions corresponding to a digital record of the entered information. The user completes all the required entry fields in the form. The recorded information can then be processed or stored locally in the user unit. Alternatively, it can be transmitted to another computer system for processing or storage. The whole of the recording computer system can be incorporated in the user unit.

The form 200 also comprises an identifying pattern or identity pattern 208, which is marked when the entry fields 204-207 of the form layout 203 are completed. The marking can, for example, consist of parts of the identifying pattern being marked with a cross, a line being

drawn through it or by it being circled. In the example shown the identifying pattern consists of four boxes 209-212 to be marked with a cross. When these are marked with a cross using the user unit, a set of positions is recorded which identifies the form layout 203 which has been completed. At the same time the recording computer system is informed in which domain in the position-coding pattern the form is situated, that is the number of positions within the form.

The sequence of completing the entry fields 204-207 and the identifying pattern 208 can be reversed. In this way information arises indicating how the digitally recorded information which arose when the entry fields 204-207 were completed is to be processed.

The identifying pattern 208 can also be utilized to record the scale in which the form layout has been printed in relation to the position-coding pattern. This information can then be used to normalize the position information which arises, so that the correct position information (that is the correct domain within the sheet) is associated with the correct information entry.

The identifying pattern is therefore preferably overspecified, that is, a marked identifying pattern results in more position information than what is required to identify a form layout unambiguously. This makes possible the above-mentioned recording of scale or other information.

A user who wants to generate a number of forms preferably acquires a pack of sheets which are already provided with the preferred position-coding pattern. All the sheets in such a pack can be identical but it is also possible for each sheet in a pack to use a domain in the position-coding pattern which is unique in the pack. The user can also in principle print the position-coding pattern himself using a printer. The position-coding patterns described in Applicant's previous Applications SE 9901954-9 and SE 9903541-2 are able to define a very large total area (for example counted in the number of A4 pages) with good resolution. The domains which are used in the packs of sheets that a user can acquire are preferably known to the computer system which records the form information. It could be appropriate to reserve a certain part of the above-mentioned total area for form applications. When all the sheets in a pack are identical, the system knows where on a sheet a position in the position-coding pattern is located. If a pack contains unique sheets, the system also knows on which sheet a position in the position-coding pattern is located. This makes possible parallel recording of a plurality of forms. Parallel recording can also be achieved when all the sheets are identical by recording the identities of the user units so that the system can connect the information from different user units with different database forms.

If the printer can print the form layout and identifying pattern accurately, the absolute positions in the position-coding pattern which are recorded when the boxes are marked with a cross can be utilized to identify the document. If the accuracy is insufficient, the relative positions of the different boxes in the position-coding pattern can be used instead.

As shown above, the identifying pattern 208 can be boxes 209-212 which are marked with a cross. However, it can also consist of, for example, dots which are to be circled. An advantage of marking boxes 209-212 with a cross is that the width and intensity of the four lines which make up the box can be made such that the position recording temporarily ceases when the lines of the box are passed when a cross is marked in the box. This means that the system can determine more precisely where in the position-coding pattern the box is located.

This principle is also used in the embodiment of the identifying pattern 300 which is shown in Fig. 3. Here the pattern 300 consists of a set of parallel lines 301, 302, etc., of different widths arranged beside each other. If these are printed on a position-coding pattern and marked by having a line drawn through them essentially at right angles to the lines 301, 302 etc. using a user unit of the type described, the position recording can be commenced and terminated several times. The posi-

tions which are recorded can be used to identify a form layout.

Fig. 4 shows the application of a number of rules or functions with position information as input data. On the left side of the Figure is shown a number of entry fields 401-404, which are completed by a user. On the right side of the figure is shown the information 405-408 which is inserted in the corresponding information entries in a database form when rules 409-412 of various kinds are applied to the items of position information that are generated when the form is completed. Output data from such a rule is generally obtained by processing the rule's input data.

A user has entered a name 413 in a first entry field 401. On the position information which then arose, a rule 409 is applied, which corresponds to OCR recognition of text on a sheet of paper. Output data 405 from this rule is thus a text string which can be stored or processed in the computer system. It is also possible to store the position information in an unprocessed state, for example if a signature is to be able to be reproduced.

In a second entry field 402 the form layout consisted of a scale 414 from 1 to 10 where a user were to describe, for example, how satisfied he was with a particular product. The user has here put a line 415 slightly to the right of the center. When a rule 411 is applied to the position information which arose when the user

marked the line 415, the output data 406 is a real number 6.5 which can be stored in an information entry in a database form.

In a third entry field 403 a user was to answer yes or no to a question. The form layout 416 consists of the words "yes" and "no" with associated boxes to be marked with a cross. The user has put a cross in the box signifying no. When a rule is applied to the position information which arose, the output data 407 is a logical or Boolean zero.

In a fourth entry field 404 a user was to answer, for example, how many items of a particular product he wants to order. The form layout 417 consists of a number of circles in which the user is to mark a cross. The user has marked a cross in three circles. When a rule is applied to the position information which arose, the output data 408 is the whole number 3.

Fig. 5 shows a flow chart, which describes a method 500 for generating of forms according to the invention. The invention also concerns a corresponding arrangement and corresponding software. In a simple embodiment this comprises three steps which can be carried out in any order. In a first step 501 the required form layout is printed. In a second step 502 the identifying pattern is printed, which corresponds to the form layout. In a possible third step 503 a database form is created in an

associated computer system. The database form comprises a virtual copy of the real form now created.

Fig. 6 shows a flow chart which describes a method 600 for recording form data for an information entry. The invention also concerns a corresponding arrangement and corresponding software. The method comprises at least two steps which can be carried out in any order. In a first step 601 a first set of position information is recorded, that is the information which arises when an entry field is completed using a user unit. In a second step 602 a second set of position information is recorded, which arises when an identifying pattern is marked using the user unit.

The scope of protection applied for is not restricted to the embodiments described above. The invention can be varied within the scope of the appended claims.

What I claim and desire to secure by Letters Patent is:

1. A method in a system comprising at least one computer and at least one printer for generating a form, characterized by the steps, in any order:

- printout (501), by means of said printer, of a form layout, comprising at least one entry field, on a base in the form of a sheet, which base is provided with a position-coding pattern, said entry field being intended to be completed using a user unit, which is arranged to detect optically positions on the base utilizing the position-coding pattern, for digital recording of information entered in the entry field; and

- printout (502), by means of said printer, of an identity pattern on said base, a marking of the identity pattern using the above-mentioned user unit being intended to be detected by the user unit, utilizing the position-coding pattern, as a set of positions which identify said form layout.

2. A method according to claim 1, wherein said identity pattern comprises a box intended to be marked with a cross using the user unit.

3. A method according to claim 1, wherein said identity pattern comprises a set of essentially parallel lines arranged beside each other, intended to be marked by having a line drawn through them essentially at right angles to the lines using a user unit.

4. A method according to any one of claims 1-3, wherein said set of positions which identify said form layout are also intended to constitute a description of the scale in which said form layout has been printed in relation to the position-coding pattern.

5. A method according to any one of claims 1-4, wherein the method also comprises the step: generation (503) of a database form in the computer system, comprising an information entry which corresponds to the entry fields of the printed form, information corresponding to said digital recording of information entered in the entry field being intended to be stored in the information entry.

6. A method according to claim 5, wherein the information which is stored in the information entry consists of output data, when the computer system applies a rule to the input data comprising said digital recording of information entered in the entry field, the output data of the rule being obtained by processing its input data.

7. An arrangement in a system, comprising at least one computer and at least one printer, for generating a form, c h a r a c t e r i z e d by means for causing said printer to print a form layout comprising at least one entry field on a base in the form of a sheet, which base is provided with a position-coding pattern, said entry field being intended to be completed using a user unit

(continued)

(continued claim 7)

which is arranged to detect optically positions on the base utilizing the position-coding pattern, for digital recording of information entered in the entry field; and means for causing said printer to print an identity pattern on said base, a marking of the identity pattern using the user unit being intended to be detected by the user unit, utilizing the position-coding pattern, as a set of positions which identify said form layout.

8. A digital storage medium, which can be read by a computer system, the storage medium containing a computer program for generating, in a system comprising at least one computer and at least one printer, a form, characterized in that the computer program contains instructions corresponding to the following steps, in any order:

- printout, by means of said printer, of a form layout, comprising at least one entry field, on a base in the form of sheet, which base is provided with a position-coding pattern, said entry field being intended to be completed using a user unit which is arranged to detect optically positions on the base utilizing the position-coding pattern, for digital recording of information entered in the entry field; and

- printout, by means of said printer, of an identity pattern on said base, a marking of the identity base

(continued)

(continued claim 8)

using said user unit being intended to be detected by the user unit, utilizing the position-coding pattern, as a set of positions which identify said layout.

9. A method in a computer system for recording form data in an information entry, said form data arising when an entry field in a form, which comprises a form layout printed on a base in the form of a sheet, is completed using a user unit, characterized by the following steps, in any order:

- recording (601) of a first set of position information corresponding to form data which arises when the entry field is completed using the user unit, by the base being provided with a position-coding pattern and by the user unit being arranged to detect optically positions on the base utilizing the position-coding pattern; and

- recording (602) of a second set of position information which in the same way arises when an identity pattern which is printed on the sheet is marked with the user unit, which second set of position information is intended to identify said form layout.

10. A method according to claim 9, wherein the information entry is incorporated in a database form.

11. A method according to claim 10, wherein a rule is applied to said first set of position information and output data from this rule, which is obtained by processing said first set of position information, constitutes input data for the information entry.

12. A method according to claim 11, wherein the format of the output data of the rule is from the group: Boolean variable, whole number, real number, text string or a graphical format.

13. A method according to any one of claims 9-12, wherein the computer system is incorporated in the user unit.

14. An arrangement in a computer system for recording form data for an information entry, said form data arising when an entry field in a form, which comprises a form layout printed on a base in the form of a sheet, is completed using a user unit, characterized by means for recording a first set of position information corresponding to form data which arises when the entry field is completed using the user unit, by the base being provided with a position-coding pattern and by the user unit being arranged to detect optically positions on the base utilizing the position-coding pattern; and means for recording a second set of position information which in the same way arises when an identity pattern, which is printed on the sheet, is marked using the user unit, which second set of position information is intended to identify said form layout.

15. A digital storage medium, which is readable by a computer system, the storage medium containing a computer program for recording form data for an information entry, said form data arising when an entry field in a

(continued)

(continued claim 15)

form, which comprises a form layout printed on a base in the form of a sheet, is completed using a user unit, characterized in that the computer program includes instructions corresponding to the following steps, in any order:

- recording of a first set of position information corresponding to form data, which arises when the entry field is completed using the user unit, by the base being provided with a position-coding pattern and by the user unit being arranged to detect optically positions on the base utilizing the position coding pattern; and

- recording of a second set of position information which in the same way arises when an identity pattern which is printed on the sheet is marked using the user unit, which second set of position information is intended to identify said form layout.

16. A form comprising a form layout (203), with at least one entry field (204-207), which is printed on a base (201) in the form of a sheet, characterized in that the base (201) is provided with a position-coding pattern, said entry fields (204-207) being intended to be completed using a user unit, which is arranged to detect optically positions on the base, utilizing the position-coding pattern, for digital recording of information entered in the entry field (204-207); and by an identity pattern (208) on said base, a marking of

(continued)

(continued claim 16)

the identity pattern (208) using the user unit being intended to be detected by the user unit, utilizing the position-coding pattern, as a set of positions which identify said form layout (203).

17. A form according to claim 17, wherein said base in the form of a sheet consists of a sheet of paper.

18. A form according to claim 16 or 17, wherein said identity pattern comprises a box (209-212) to be marked with a cross, intended to be marked with a cross using the user unit.

19. A form according to claim 16 or 17, wherein said identity pattern comprises a set of essentially parallel lines arranged beside each other, to be marked with a line drawn through them essentially at right angles to the lines using the user unit.

Abstract of the Disclosure

This invention concerns a method for generating a form, a method for recording form data, which arises when a corresponding form is completed, for an information entry, and a corresponding form. The form comprises a form layout with at least one entry field which is printed on a base in the form of a sheet. It is characterized in that the base is provided with a position-coding pattern, the entry field being intended to be completed using a user unit which is arranged to detect optically positions on the sheet, utilizing the position-coding pattern, for digital recording of information entered in the entry field; and by an identity pattern on the sheet, a marking of the identity pattern using the user unit being intended to be detected by the user unit, utilizing the position-coding pattern, as a set of positions which identify the form layout.

Elected for publication: Fig. 2

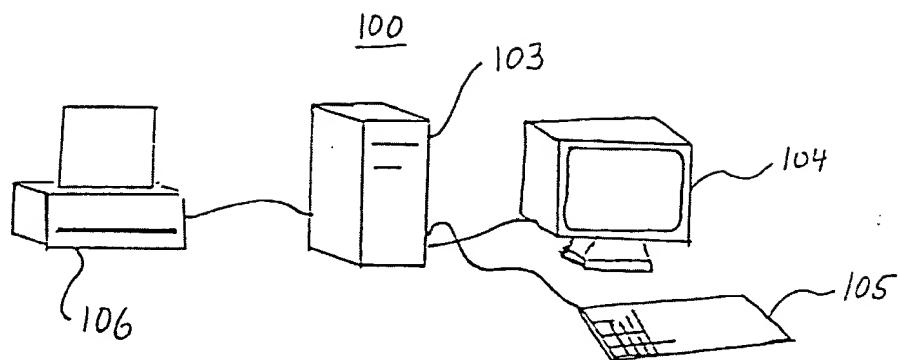
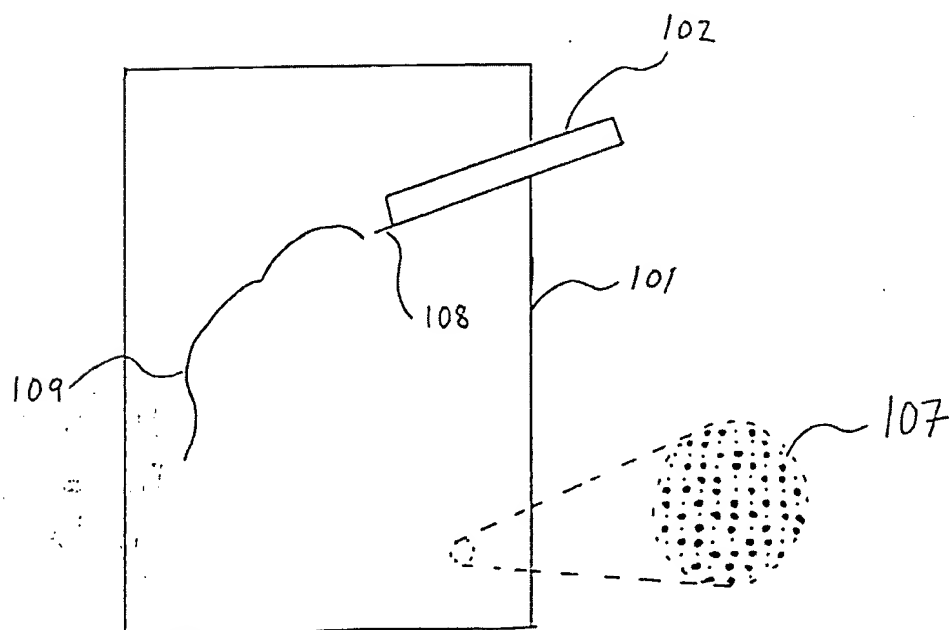


Fig. 1



200

203

204

205

206

207

208

201

NAME:

ADDRESS:

POSTCODE:

PREVIOUS CUSTOMER?

YES NO

210 211 212

209

200

Fig. 2

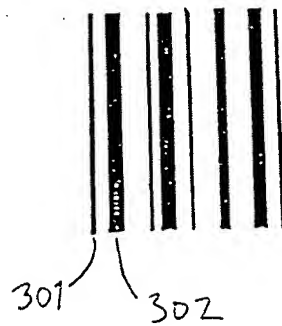


Fig. 3

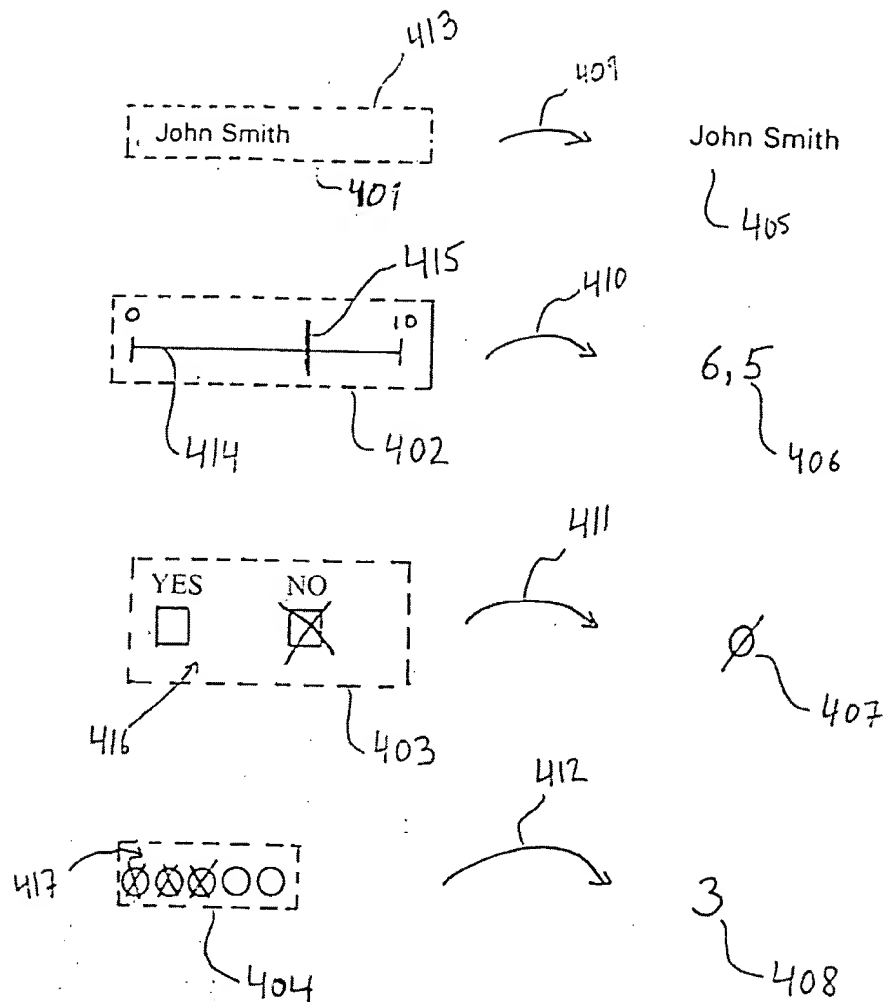


Fig. 4

Fig. 5

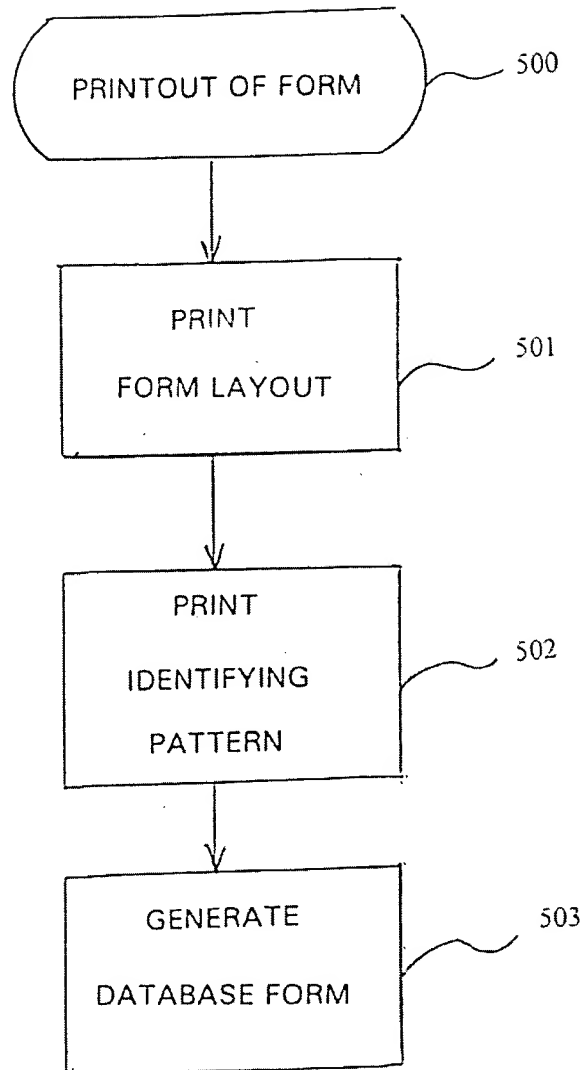


Fig. 6